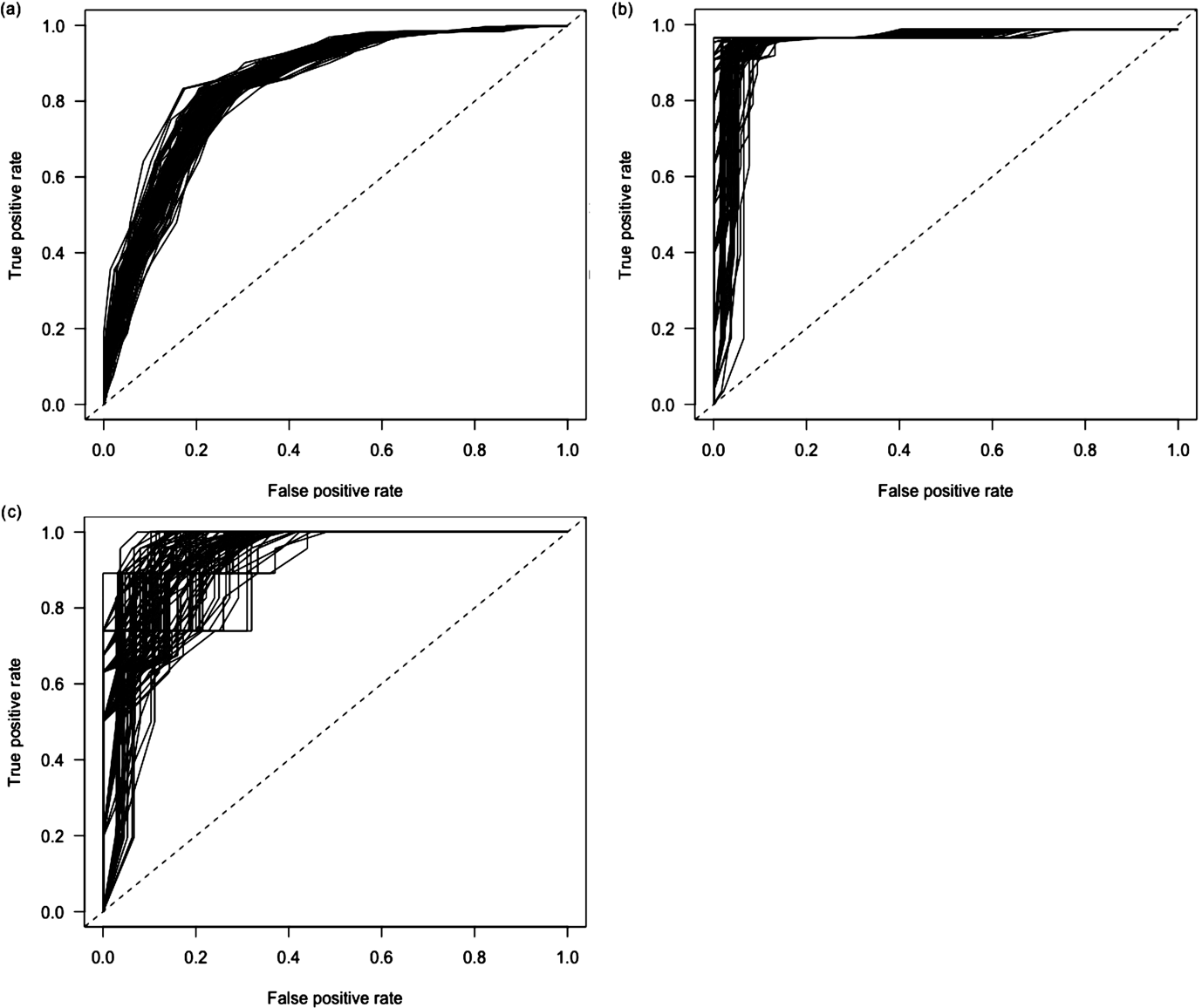
Supplementary material



**Figure S1**. PCA graph identifying climate variables as significant for *S. costaricensis, S. ocamponis, S. undatus*).



**Figure S2**. MaxEnt prediction models for the distribution of (a) *Prosopis* spp. the preferred host of *S. undatus*. (b) *S. undatus*. (c) *S. costaricensis* and d) *S. ocamponi*. Prediction models for *Prosopis* was modelled using a random forest classification. For the three *Selenicereus* species the results of the hierarchical analytical process were considered.



**Figure S3**. Receiving operating characteristic curves (ROC) for the weighted (hierarchical analytical procedures) MaxEnt models for the habitat suitability of three species of *Selenicereus* from Mexico and Central America. (a) *S. undatus*. (b) *S. costaricencis*. (c) *S. ocamponis*.

**Table S1**. Estimations of the receiving operating characteristic curves (ROC) for the weighted MaxEnt models.

|  |  |
| --- | --- |
| Species | ROC |
| *S. costaricensis* | 0.983 |
| *S. ocamponis* | 0.856 |
| *S. undatus* | 0.909 |